3050

#### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

## (19) World Intellectual Property Organization International Bureau



### 

## (43) International Publication Date 21 August 2003 (21.08.2003)

#### **PCT**

# (10) International Publication Number WO 03/068655 A1

- (51) International Patent Classification<sup>7</sup>: B66C 13/46, 13/08, A01G 23/00, G05D 3/18 // E02F 3/36
- (21) International Application Number: PCT/SE03/00049
- (22) International Filing Date: 17 January 2003 (17.01.2003)
- (25) Filing Language:

Swedish

(26) Publication Language:

English

(30) Priority Data:

SE 0200168-3

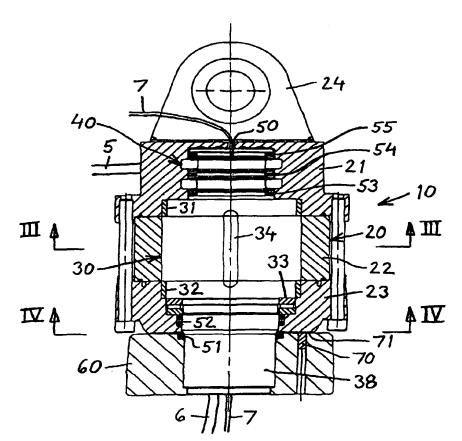
21 January 2002 (21.01.2002) SI

- (71) Applicant (for all designated States except US): INDEX-ATOR AB [SE/SE]; Box 11, S-922 21 Vindeln (SE).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): JONSSON, Anders [SE/SE]; Häradsvägen 183, S-922 31 Vindeln (SE).

- (74) Agent: HEDLUND, Alf; Patentkonsult Alf Hedlund AB, Box 171, S-931 22 Skellefteå (SE).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: ROTATOR



(57) Abstract: The invention relates to a rotator (10) for jib-carried tools (1), for example tree working units, wherein the rotator (10) includes a stator (20) and a rotor (30), wherein the rotator (10) is connected to a tip (2) of the jib or arm (3) and to the tool (1). The rotator (10) has or includes in its surroundings means (70, 71) for determining the relative position of rotation between rotor (30) and stator (20). The means for determining the relative position of rotation comprises a pulse emitter (70) and a number of pulse generating elements (71), such as grooves or teeth. Limitation of the angle through which the rotator (10) can turn and control of the direction of rotation prevents, for instance, hoses and/or cables (7) from twisting or rotating away from their respective connections, while enhancing the extent to which automation can be achieved at the same time.



WO 03/068655 A1